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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,722	08/20/2003	William R. Haas	200300327-1	6123

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EXAMINER

SANTIAGO, MARICELI

ART UNIT	PAPER NUMBER
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2879

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/644,722	Applicant(s) HAAS ET AL.	
	Examiner Mariceli Santiago	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-18 and 20 is/are rejected.
- 7) ☒ Claim(s) 4 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The abstract of the disclosure is objected to because the language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 5-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikeuchi et al. (JP 10-064685).

Regarding claim 1, Ikeuchi discloses a system for providing a thermally optimized cold cathode heater, the system comprising a heater wire (4) disposed in a plurality of turns, wherein turns of the plurality of turns are closely spaced to concentrate heat in an area of a host cathode device corresponding to a cold cathode position (3c), and wherein turns of the plurality of turns are disposed to minimize introduction of heat in an area of the host cathode device not corresponding to the cold cathode position (Abstract).

Regarding claim 2, Ikeuchi discloses a system where the closely spaced turns of the plurality of turns comprise a first set of more than one turn corresponding to a first cathode of the host cathode device and a second set of more than one turn corresponding to a second cathode of the host cathode device (regions 3c and 3b, respectively, Fig. 1).

Regarding claim 3, Ikeuchi discloses a system wherein a turn of the plurality of turns comprises a turn coupling the first set of more than one turn to the second set of more than one turn, wherein the turn coupling the first and second sets of turns is less closely spaced than the closely spaced turns of the first and second sets of turns (Figs. 1 and 3).

Regarding claim 5, Ikeuchi discloses a system wherein the host cathode device comprises a cold cathode lamp (Abstract).

Regarding claim 6, Ikeuchi discloses a system comprising a cold cathode heater having a heater wire (4) disposed in a plurality of turns, wherein turns of the plurality of turns are more closely spaced in a portion of the cold cathode heater corresponding to a cold cathode position (3c) and less closely spaced in a portion (3b) of the cold cathode heater that does not correspond to the cold cathode position.

Regarding claim 7, Ikeuchi discloses a system wherein the plurality of turns comprises a first set of more than one turn and a second set of more than one turn, and wherein a turn of the first set is less closely spaced from a turn of the second set than are turns of the first set of more than one turn (Figs. 1 and 3).

Regarding claim 8, Ikeuchi discloses a system wherein a portion of the heater wire coupling the first set of more than one turn and the second set of more than one turn does not provide heat output.

Regarding claim 9, Ikeuchi discloses a system wherein the plurality of turns are concentrated at first and second ends of the cold cathode heater (regions 3c).

Regarding claim 10, Ikeuchi discloses a system wherein the plurality of turns are more concentrated at ends (3c) of the cold cathode heater than at a middle (3b) of the cold cathode heater.

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Regarding claim 11, Ikeuchi discloses a system wherein the plurality of turns incarcerate a cold cathode lamp having a cathode (5) at each end thereof, the cold cathode comprising at least one of the cathodes at an end of the cold cathode lamp.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-16, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeuchi et al. (JP 10-064685).

Regarding claims 12 and 14, Ikeuchi discloses a method for providing heat to a cold cathode, the method comprising wrapping a device having the cold cathode (5) with a heater wire (4), varying spacing of the heater wire around the device to concentrate heat in an area of the device corresponding to the cold cathode and to minimize heat in an area of the device not corresponding to the cold cathode. Ikeuchi fails to disclose the limitation of coupling the heater wire to a controller and controlling energization of the heater wire to heat the cold cathode when user activity is detected with respect to a host system including the device. One skilled in the art would reasonably contemplate the use of a controller coupled to the heater wire in order to control and adjust the heating temperature of the coil during the lamp's operational lifetime, more particularly to turn on and off the heater circuit depending if the lamp structure is in use or not. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate a controller coupled to the heater wire in order to control and adjust the heating temperature of the coil during the lamp's operational lifetime.

Regarding claim 13, Ikeuchi discloses a method further comprising controlling energization of the heater wire to heat the cold cathode throughout an operational state of a host system including the device; varying heating along the device, wherein variations of heating correspond to different concentrations of heating wire on the device.

Regarding claim 15, Ikeuchi discloses a method wherein varying spacing comprises providing different spacing between adjacent heater wire along the device (Fig. 1, Abstract).

Regarding claim 16, Ikeuchi discloses a method wherein varying spacing further comprises providing a first concentration of heater wire at an end of the device (region 3c) and a second concentration of heating wire in a middle of the device (region 3b), wherein the first concentration is greater than the second concentration (Fig. 1, Abstract).

Regarding claim 18, Ikeuchi discloses a method further comprising coupling the closely spaced plurality of turns (region 3c) with another closely spaced plurality of turns with a less closely spaced turn (region 3b, Fig. 1).

Regarding claim 20, Ikeuchi discloses a method wherein the device comprises a cold cathode lamp (Fig. 1, Abstract).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeuchi et al. (JP 10-064685) in view of Ochi et al (US 4,137,483).

Regarding claim 17, Ikeuchi fails to disclose the limitation of fixedly attaching the heater wire by energizing the heater wire to activate an adhesive thereon. Ochi discloses a lamp structure provided with a heater wire surrounding the lamp tube, and further comprising an adhesive material to secure the heater wire to the outer surface of the lamp tube, thus deformation of the heater wire is prevented. While Ochi is silent in regards to energizing the heater wire to activate the adhesive, heat activated adhesive materials, such as epoxy, are well

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know in the art, one skilled in the art would contemplate the step of energizing the heater wire in order to activate the adhesive material used to adhere the heater wire to the outer surface of the lamp tube, without the requirement of external heating means. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to incorporate an adhesive material and a step of activating the adhesive material by energizing the heater wire in the method of Ikeuchi in order to secure the heater wire to the outer surface of the lamp tube by means of energizing the heater wire, thus avoiding the need of an external heating source to activate the adhesive.

Allowable Subject Matter

Claims 4 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 4 and 19, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 4 and 19, and specifically comprising the limitation of coupling the closely spaced plurality of turns with another closely spaced plurality of turns with a low resistance conductor.

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariceli Santiago whose telephone number is (571) 272-2464. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Mariceli Santiago
Primary Examiner
Art Unit 2879